OBSERVATIONS OF THE TOTAL ECLIPSE OF THE MOON, MARCH 10, 1895.

By R. H. Tucker, Jr.

The times of beginning and end of the total eclipse were observed, using a pair of powerful field-glasses. The phenomena were as uncertain as usual in such cases, perhaps slightly confused in addition by thin clouds covering the Moon.

Time noted for beginning: $6^h\ 51^m\ 59^s$ P. S. T.
and end: 8 27 21

The face of the Moon beneath the shadow was slightly copper-colored preceding totality; strongly so during all of the total eclipse.

A darker patch of shadow extended from the northeast rim of the Moon, southwest to the edge of the shadow, before totality. During the total eclipse, this gradually shifted its position upon the disc, until it reached from the southwest rim of the Moon, towards the northeast, not quite to the northeast rim. This darker patch was not visible after totality, the shadow then being uniformly dusky, with no color.

OBSERVATIONS OF THE TOTAL ECLIPSE OF THE MOON ON MARCH 10, 1895.

By C. D. Perrine.

The following observations were made with the 12-inch equatorial of the Lick Observatory.

At $6^h\ 00^m\ 26^s$ P. S. T., the first glimpse of the Moon was obtained, through thick haze and smoke. The image was very much distorted, and it was not until $6^h\ 17^m$ that the outlines of the shadow became at all distinct. Haze was present during the entire evening, and sufficiently thick to interfere materially, especially with the occultations.

The Moon's disc was visible at all times, and quite conspicuous except for a brief time at mid-transit, and even then the

outlines of the principal dark areas were visible to the naked eye. The region near the south pole was a pronounced copper color all through the total phase, while the region near the north pole was yellow, and only once or twice showed any coppery tinge. A very dark area, about half the width of the Moon in latitude, moved across the disc from east to west during totality.

The contacts observed were:

2d contact of shadow,	6^h	51^m	55^s P. S. T.
3d " "	8	27	30
4th " "	9	25	20

The following are the times at which the shadow touched certain of the best defined objects in its advance:

6^h	27^m	45^s	P. S. T.,	E. wall of *Triesnecker.*
	29	40		E. wall of *Plato.*
	33	30		*Pliny* disappears.
	40	45		E. wall of *Petavius.*
	43	05		Shadow touches *Proclus.*
	44	30		*Proclus* gone. Shadow on *Langrenus.*
	45	15		Shadow touches *Mare Crisium.*
	48	50		Shadow touches W. edge of *Mare Crisium.*

The receding shadow was observed crossing the following objects:

8^h	33^m	43^s	P. S. T.,	*Aristarchus* reappears.
	37	18		*Kepler* reappears.
	39	00		W. wall of *Gassendi* reappears.
	42	40		W. cape of *Sinus Iridum* reappears.
	46	12		W. wall of *Copernicus* reappears.
	46	58		E. wall of *Plato* reappears.
	48	38		W. wall of *Plato* reappears.
	49	10		*Pico* reappears.
	49	36		E. wall of *Tycho* reappears.
	51	20		W. wall of *Tycho* reappears.
	52	26		W. wall of *Archimides* reappears.
	59	22		E. wall of *Triesnecker* reappears.
9	00	00		W. wall of *Triesnecker* reappears.
	02	14		*Menelaus* reappears.
	09	55		*Vitruvius* reappears.
	15	53		*Proclus* reappears.
	18	30		*Messier* (W. crater) reappears.
	21	10		*Auzout* reappears.

OCCULTATIONS.

Mag.	Star.	P. S. T. of Disappearance.
9.5	BD + 3°, 2516	$7^h\ 12^m\ 44^s.0$
7.2	BD + 3°, 2519	7 42 55.0

LICK OBSERVATORY, March 15, 1895.

OBSERVATIONS OF THE TOTAL ECLIPSE OF THE MOON, MARCH 10, 1895.

BY ALLEN L. COLTON.

The lunar eclipse of 1895, March 10, was observed by me at Professor HOLDEN'S request, using a small portable telescope, fitted with a terrestrial eye-piece. The sky was very hazy, and the edge of the shadow ill-defined, so that I do not consider the observations of high accuracy. My efforts were directed to recording the times of transit of the edge of the shadow over recognized objects on the Moon's surface. Under the conditions it did not seem practicable, usually, to record the time more closely than to the nearest half-minute.

	P. S. T.
Before totality:	
1st edge *Mare Crisium*,	$6^h\ 44\frac{1}{2}^m$
2d " " "	6 49
Total,	6 52
End of totality,	8 27
After totality:	
Middle of *Grimaldi*,	8 29½
Aristarchus,	8 34
Kepler,	8 38
2d edge *Mare Humorum*,	8 41½
Cape Laplace,	8 43
Copernicus,	8 46¼
Plato,	8 48½
Tycho,	8 50
1st edge *Mare Serenitatis*,	8 57½
Manilius,	9 00½
Middle of bright streak across *Mare Serenitatis*,	9 03½
2d edge *Mare Serenitatis*,	9 08
Shadow passes off Moon's disc,	9 25½